

**REMARKS**

**STATUS OF THE CLAIMS**

Claims 1, 4-8, and 11-22 are presently pending. Claim 13 has been amended. Support for the amendment can be found in the originally filed specification, for example at page 14, lines 21-29. No new matter has been added.

**REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH**

The Examiner has rejected claims 1, 4-8, and 11-22 under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the written description requirement because "the new recitation of 18 as the endpoint of the amended range of component c does not have basis in the originally filed specification." See page 2 of the outstanding Final Office Action. Applicants respectfully disagree for at least the following reasons.

Applicants respectfully submit that the recitation of 16 as the endpoint of component (c) was an inadvertent typographical error in the Amendment After Final Office Action submitted November 16, 2007. Applicants attempted to correct this typographical error in the Amendment submitted June 17, 2008. Applicants further submit that the originally filed specification provides on page 9, lines 26-27 that a non-limiting example of a source of suitable friction modifying long chain alkyl phosphonate is HiTEC®-059, available from Ethyl Corporation (now Afton Chemical Corporation.) One skilled in the art would know that HiTEC®-059 comprises dimethyloctadecyl phosphonate, which comprises an alkyl group containing 18 carbon atoms. Accordingly, claims 1, 4-8, and 11-22 are sufficiently supported by the originally filed specification, and the recitation of 18 as the endpoint of component (c) is not newly

added matter. Reconsideration and withdrawal of the rejection are respectfully requested.

**REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH**

The Examiner has also rejected claims 6 and 13 under 35 U.S.C. §112, second paragraph because it is allegedly unclear what is encompassed by “minor amount” and “major amount.” See *id.* at pages 2-3. Applicants respectfully disagree for at least the following reasons.

Applicants respectfully resubmit that one of ordinary skill in the art would understand that a “major amount” may be understood to mean greater than or equal to about 50%, and a “minor amount” may be understood to mean less than about 50%, as is commonly understood in the art. These terms are commonly and widely recited in issued patent claims relating to this field, including patents that do not specifically provide a specific definition for these terms in the specification, e.g., U.S. Patent Nos. 7,414,013, 7,300,910, 5,256,321, and 4,800,031.

Furthermore, in the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art. *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003). The ordinary and customary meaning of a term may be evidenced by a variety of sources, including “the words of the claims themselves ... and the state of the art.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314, 75 USPQ2d 1321, 1327 (Fed. Cir. 2005) (*en banc*) (emphasis added). Therefore, even though the present specification does not recite a range for “major amount” and “minor amount,” a skilled person would still be

apprised of the scope of the invention at least because a skilled person would understand that a "major amount" may be understood to mean greater than or equal to about 50%, and a "minor amount" may be understood to mean less than about 50%. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**REJECTIONS UNDER 35 USC §103**

1. U.S. Patent Application No. 2002/0119895 in view of U.S. Patent No. 4,755,311, STN Structure, and U.S. Patent No. 4,293,432

The Examiner has rejected claims 1, 4-5, 7-8, and 11-20 under 35 USC §103(a) as being unpatentable over U.S. Patent Application No. 2002/0119895 to Cook et al. (hereinafter "Cook") in view of U.S. Patent No. 4,755,311 to Burjes et al. (hereinafter "Burjes"), *STN Structure*, and U.S. Patent No. 4,293,432 to Papay et al. (hereinafter "Papay") for the reasons set forth at pages 3-6 of the outstanding Final Office Action. Applicants respectfully disagree for at least the reasons of record, as well as the following reasons.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007) (emphasis added). Applicants respectfully submit that the presently claimed compositions provide results that would not have been predictable to one skilled in the art without the benefit of the present disclosure.

*Cook* teaches lubricating compositions according to its disclosure in para. [0204]. Yet *Cook* fails to provide any teaching or suggestion for which, if any, compositions disclosed therein provide improved performance characteristics as compared to the

other disclosed compositions. *Cook* does not disclose any testing data comparing lubricating compositions but instead simply states that "the lubricating compositions have improved antiwear properties." See para. [0006]. In other words, according to *Cook*, all of its disclosed lubricating compositions provide the same antiwear properties.

The Examiner has argued that *Cook* allegedly discloses an amine salt of monothiphosphoric acid that allegedly corresponds to the presently claimed combination of hydrocarbylamine and alkylphosphoro(mono)thioate. See page 3 of the outstanding Office Action. Applicants respectfully submit that in light of the above, even if *Cook* did teach what the Examiner contends, *Cook* still fails to provide any advantage for using a combination of hydrocarbylamine and alkylphosphoro(mono)thioate over any of the other antiwear compounds disclosed therein. For example, *Cook* teaches various lubricating compositions, including a lubricating composition comprising a phosphorus-containing ester and a lubricating composition comprising a combination of hydrocarbylamine and alkylphosphoro(mono)thioate, without distinguishing which, if any, of the compositions would provide enhanced performance characteristics as compared to the other compositions. See para. [0204]. Thus, one skilled in the art would not be motivated to particularly select the presently claimed combination (b) over any of the other antiwear compounds disclosed in *Cook*.

In contrast, the present disclosure teaches in Table 1 that lubricating compositions comprising an alkyl thiophosphate ester (e.g., a phosphorus-containing ester) does not improve the load carrying capacity of the oils, i.e., such compositions demonstrate Timken load capacity results lower than the results for comparative Example 1 (Timken load = 70 lb). See page 22, Table 1 of the present specification.

The present disclosure further teaches that lubricating compositions comprising a combination of hydrocarbylamine and alkylphosphoro(mono)thioate (i.e., Examples 10-16) demonstrate improved load carrying capacity of the oils by providing Timken load carrying capacity results greater than 90 lb. See *id.* at Table 2. This result is considered to be unexpected given that, for example, the combination in Example 9 showed no benefit.

Therefore, one skilled in the art considering *Cook* but without the benefit of the present disclosure would not appreciate that the particular combination of hydrocarbylamine and alkylphosphoro(mono)thioate provides improved load carrying capacity over other antiwear compounds. In fact, as discussed above, *Cook* teaches that all of its disclosed antiwear compounds would provide the same antiwear properties. Only the present disclosure shows otherwise.

Moreover, *Burjes*, *Papay*, and *STN Structure* fail to overcome the deficiencies of *Cook*. In particular, one skilled in the art considering these references would not be motivated to particularly select a combination of hydrocarbylamine and alkylphosphoro(mono)thioate at least because none of the references teach or suggest that a lubricating composition comprising a combination of hydrocarbylamine and alkylphosphoro(mono)thioate demonstrates improved load carrying capacity over a lubricating composition comprising other antiwear compounds. Further, the Examiner has relied on *Papay* for allegedly teaching presently claimed component (c) but has not cited any teachings therein that would contradict Applicants' remarks above.

For at least the foregoing reasons, *Cook*, *Burjes*, *Papay*, and *STN* structure, fail to render the present invention obvious. Applicants respectfully request reconsideration and withdrawal of the rejection.

2. *Cook*, *Burjes*, *STN* Structure, and further in view of U.S. Patent No.

5,942,470

The Examiner has rejected claim 6 under 35 USC §103(a) as being unpatentable over *Cook* in view of *Burjes*, *STN* Structure as applied to claims 1, 4-5, 7-8, and 11-20 above, and further in view of U.S. Patent No. 5,942,470 to Norman et al. (hereinafter "Norman") for the reasons set forth at page 7 of the outstanding Final Office Action. Applicants respectfully disagree for at least the reasons of record, as well as the following reasons.

Applicants respectfully submit that claim 6 depends from independent claim 1 and is patentable for the same reasons as claim 1. In particular, for at least the reasons above, *Cook* in view of *Burjes* and *STN* Structure fails to provide any advantage for using a combination of hydrocarbylamine and alkylphosphoro(mono)thioate over any of the other disclosed antiwear compounds disclosed therein, and a skilled person would not be motivated to particularly select presently claimed component (b) in light of their combined teachings.

Moreover, *Norman* does not overcome the deficiencies of *Cook* in view of *Burjes* and *STN* Structure for the same reasons. Further, the Examiner has not pointed to any teaching(s) therein that would contradict Applicants' remarks above. For at least the foregoing reasons, the combination of *Cook*, *Burjes*, and *STN* Structure in view of

*Norman* does not render the present invention obvious. Applicants respectfully request reconsideration and withdrawal of the rejection.

3. *Cook* in view of *Burjes*, *STN Structure*, *Papay*, and further in view of U.S. Patent No. 4,710,100

The Examiner has rejected claims 21-22 under 35 U.S.C. §103(a) as being unpatentable over *Cook* in view of *Burjes*, *STN Structure*, *Papay*, and further in view of U.S. Patent No. 4,710,100 to Laing et al. (hereinafter "*Laing*") for the reasons set forth at page 8 of the outstanding Final Office Action. Applicants respectfully disagree for at least the reasons of record, as well as the following reasons.

Applicants respectfully submit that claims 21-22 depends from independent claim 8 and is patentable for the same reasons as claim 8. In particular, and for at least the reasons above, *Cook* in view of *Burjes*, *STN Structure*, and *Papay* fails to provide any advantage for using a combination of hydrocarbylamine and alkylphosphoro(mono)thioate over any of the other disclosed antiwear compounds disclosed therein, and a skilled person would not be motivated to particularly select presently claimed component (b) in light of their combined teachings.

Moreover, *Laing* does not overcome the deficiencies of *Cook* in view of *Burjes*, *STN Structure*, and *Papay* for the same reasons. Further, the Examiner has not pointed to any teaching(s) therein that would contradict Applicants' remarks above. For at least the foregoing reasons, the combination of *Cook*, *Burjes*, and *STN Structure* in view of *Laing* fails to render the present invention obvious. Applicants respectfully request reconsideration and withdrawal of the rejection.

## **CONCLUSION**

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing all claims into condition for allowance. Applicants submit that the proposed amendment of claim 13 does not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, because all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants respectfully point out that the final action by the Examiner presented some new arguments as to the application of the art against Applicants' invention. It is respectfully submitted that the entering of the Amendment would allow the Applicants to reply to the final rejections and place the application into condition for allowance.

Finally, Applicants submit that entry of the amendment would place the application into better form for Appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is not rendered obvious in view of the cited art applied against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the



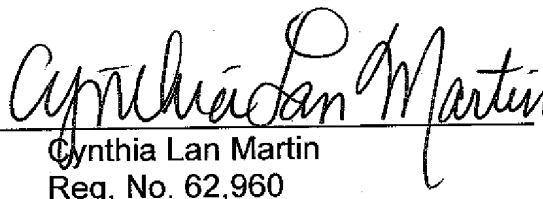
undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 50-2961.

Respectfully submitted,

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